



Docket No.: 0614.1889

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re the Application of:

Kimikazu FURUKAWA et al.

Serial No.: 09/046,677

Group Art Unit: 2642

Confirmation No.: 2428

Filed: March 24, 1998

Examiner: Hector A. Agdeppa

For: COMMUNICATION SUPPORT SYSTEM FOR PROVIDING SECURITY OF  
TELEPHONE SERVICES OF A DATA PROCESSING DEVICE FOR A TELEPHONE  
USER

**REPLY BRIEF**

**Mail Stop Appeal Brief-Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Answer mailed September 22, 2005 in the above-identified application, Applicants submit this Reply Brief.

**I. Argument**

The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,898,756 to Manning et al. (hereinafter "Manning") in view of U.S. Patent No. 5,864,607 to Rosen et al. (hereinafter "Rosen"), U.S. Patent No. 3,569,634 to Amadasi et al. (hereinafter "Amadasi"), and U.S. Patent No. 6,208,966 to Bulfer (hereinafter "Bulfer") is unsupported by the combination of references relied upon and should be withdrawn.

Since the Examiner's Answer focuses on claim 1, this reply will focus on claim 1. The arguments, however, ought to pertain equally well to the other claims.

The Examiner acknowledges that Manning teaches no "actual open circuiting of lines and blocking command signals completely" at page 5, lines 20 and 21 of the Examiner's Answer. The Examiner asserts at page 6, lines 11-14 of the Examiner's Answer that:

...[I]t would have been obvious for one of ordinary skill in the art at the time the invention was made to have selected a method of open circuiting the telephone unit from the network as taught by Amadasi et al. in the Manning et al. system, because either method effects the same result.

This is incorrect, as discussed more fully below, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning.

A. Modifying Manning as proposed by the Examiner will render Manning inoperable.

1. The dialing signal transmission-inhibiting device of Manning is meant to be parallel connected. In particular, as described in Manning at column 2, lines 7-11,

In one aspect, the present invention is directed to a parallel-connected device that inhibits the transmission of dialing signals over a telephone link. An a.c. load, preferably a series-connected capacitor and resistor, is provided to inhibit transmission by attenuation of the signals.

If an open-circuit is substituted for the parallel-connected a.c. load of Manning, on the other hand, you get . . . nothing. A parallel-connected open circuit is irrelevant—indeed, meaningless. Put another way, connecting an open circuit in parallel has no effect. Thus, modifying Manning as proposed by the Examiner will not achieve the same result, contrary to the Examiner's assertion at page 6, line 14 of the Examiner's Answer. Modifying Manning as proposed by the Examiner, rather, will render Manning incapable of attenuating a signal at all.

2. Manning powers his DTMF signal generator with d.c. current from the central telephone office. In particular, as described in Manning at column 2, lines 28-39:

On the other hand, an a.c. load that will properly attenuate the dialing signals and that is charged by d.c. current from the central telephone office, only when thus connected, may take too long to charge up. A certain minimum voltage required by the phone's circuitry for DTMF signal generation may not be available for at least a portion of the time while the capacitor charges so the telephone may not be able to continue to generate the DTMF signal for proper detection. In the present invention, this problem is solved by connecting the a.c. load across the telephone link when a telephone's off-hook status is first detected. This charges a capacitor, the primary a.c. load.

If an open circuit is substituted for the parallel-connected a.c. load of Manning, on the other hand, no power from the central office will flow through the circuit to power the circuit when the circuit is open. The open circuit may have enough power to open, but it won't close again. Thus, modifying Manning as proposed by the Examiner will not achieve the same result, contrary to the Examiner's assertion at page 6, line 14 of the Examiner's Answer. Modifying Manning as proposed by the Examiner, rather, will render Manning incapable of powering itself with d.c. current from the central telephone office.

B. Manning teaches away from the modification proposed by the Examiner.

1. The circuit-blocking device of Amadasi would have to be connected in series to be operable. In particular, as shown in Fig 2 of Amadasi, and as described at column 2, lines 5, 6, and 7, "coupler 1 comprises a series switch a1 connected to telephone line 2 and to balanced transformer 4."

Manning, on the other hand, rejects serial connections as being difficult to install and requiring an experienced technician, which increases costs. In particular, as described in Manning at column 1, lines 29-36,

The principle downside of serial-connected speed dialers is the difficulty of installation. Serial connection can be made easily for one telephone, but it presents difficulties for many telephones, since there is often no modular jack available that allows a device to be plugged between the central telephone office and all of the phones on a phone line. This installation often requires an experienced technician, which increases costs.

Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since Manning himself warned that such a modification would be difficult to install, and require an experienced technician, which increases costs.

2. The circuit-blocking device of Amadasi would have to be connected in series to be operable, as discussed above. Manning, on the other hand, rejects serial connections by implication by describing parallel connections as requiring no special wiring because the parallel-connected device can plug into a modular jack connected to the phone line and work for all phones on the line. In particular, as described in Manning at column 1, lines 40-43,

The parallel connection requires no special wiring because the parallel-connected device can plug into a modular jack connected to the phone line and work for all phones on the line. If the desired jack is being used by a telephone, a T-adaptor can be used or the device can provide this function.

Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since Manning himself rejected such a modification in favor of parallel connections, which require no special wiring because the parallel-connected device can plug into a modular jack connected to the phone line and work for all phones on the line.

3. The circuit-blocking device of Amadasi would have to be connected in series to be operable, as discussed above. Such a series connected open circuit would have

extremely high attenuation. Manning, on the other hand, warns against high attenuation as not a satisfactory solution. In particular, as described in Manning at column 5, lines 36-40:

Simply selecting a very high attenuation, however, is not a satisfactory solution. If relay SW1 is closed, increasing attenuation has the undesirable effect of increasing the time required to detect that a phone has been hung up. This effect limits the maximum attenuation.

Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since Manning himself rejected such a modification as not a satisfactory solution.

C. Modifying Manning as proposed by the Examiner Renders Manning Unsatisfactory For Its Intended Purpose.

1. One purpose of the parallel-connected data transfer system 100 of Manning is to load the telephone line to ensure that dialing signals generated by one of the telephones are not detected by a central office serving the link. In particular, as described at column 1, lines 55-58,

At some point during operation, the device should load the telephone link to ensure that dialing signals generated by one of the telephones are not detected by a central office serving the link.

Modifying Manning as proposed by the Examiner, on the other hand, would have rendered Manning unsatisfactory for this intended purpose, in contravention of M.P.E.P. § 2143.01, since an open circuit will not load the telephone link to ensure that dialing signals generated by one of the telephones are not detected by a central office serving the link. Substituting an open circuit for the parallel-connected data transfer system 100 of Manning, rather, will have no effect at all on telephone link 10, as discussed above. Connecting an open circuit in series, on the other hand, will simply cut the circuit. No load will be provided to the telephone link to ensure that dialing signals generated by one of the telephones are not detected by a central office serving the link, in accordance with the express purpose of Manning. Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since the modification would have rendered Manning incapable of ensuring that dialing signals generated by one of the telephones are not detected by a central office serving the link.

2. Another intended purpose of the parallel-connected data transfer system 100 of Manning is to provide for transparency to the user. In particular, as described at column 2, lines 19-23,

In other aspects, the design and operation of the invention provide for transparency to the user. For example, in the time between the phone initially going off-hook and the transmission of the first DTMF signal, the user at the telephone is able to hear a normal dial tone with the present invention. This operation is deceptively difficult to achieve since the a.c. load attenuates the dial tone. This fact suggests that the load should be connected across the telephone link in response to the detection of the start of the first dialed digit.

Modifying Manning as proposed by the Examiner, on the other hand, would have rendered Manning unsatisfactory for this intended purpose, in contravention of M.P.E.P. § 2143.01, since an open circuit in parallel would have no effect, as discussed above, while an open circuit connected in series would not have allowed the user at the telephone to hear a normal dial tone in the time between the phone initially going off-hook and the transmission of the first DTMF signal. Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since the modification would not have allowed the user at the telephone to hear a normal dial tone in the time between the phone initially going off-hook and the transmission of the first DTMF signal.

3. A third intended purpose of the parallel-connected data transfer system 100 of Manning is to connect an a.c. load across the telephone link when a telephone's off-hook status is first detected. In particular, as described at column 2, lines 31-38,

A certain minimum voltage required by the phone's circuitry for DTMF signal generation may not be available for at least a portion of the time while the capacitor charges so the telephone may not be able to continue to generate the DTMF signal for proper detection. In the present invention, this problem is solved by connecting the a.c. load across the telephone link when a telephone's off-hook status is first detected.

Modifying Manning as proposed by the Examiner, on the other hand, would have rendered Manning unsatisfactory for this intended purpose, in contravention of M.P.E.P. § 2143.01, since an open circuit would not have provided the minimum voltage required while the capacitor charges, by connecting the a.c. load across the telephone link when a telephone's off-hook status is first detected. Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since the modification would not have provided the minimum voltage required while the capacitor charges.

4. A fourth intended purpose of the parallel-connected data transfer system 100 of Manning is to use a single interfacing capacitor to connect both a DTMF detector and a tone generator to the tip line. In particular, as described at column 2, lines 43-50,

Further transparency is provided in certain embodiments by using a single interfacing capacitor to connect both a DTMF detector and a tone generator to the tip line. This reduces the loading on the tip line by the device during periods when users are conversing on the telephone link, thus preserving the audio quality of the telephone link, and also reduces the manufacturing cost of the device.

Modifying Manning as proposed by the Examiner, on the other hand, would have rendered Manning unsatisfactory for this intended purpose, in contravention of M.P.E.P. § 2143.01, since an open circuit connecting both the DTMF detector and the tone generator to the tip line, i.e. an open circuit connected in parallel, would have no effect. Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since the modification would not have had no effect. Connecting an open circuit in series to either the DTMF detector or the tone generator, on the other hand, would have failed to achieve the express purpose of Manning of connecting both the DTMF detector and the tone generator to the tip line with a single interface.

D. Modifying Manning as proposed by the Examiner Changes the Principle of Operation of Manning.

Manning provides a parallel-connected device that inhibits the transmission of dialing signals over a telephone link with an a.c. load. In particular, as described at column 2, lines 7-11:

In one aspect, the present invention is directed to a parallel-connected device that inhibits the transmission of dialing signals over a telephone link. An a.c. load, preferably a series-connected capacitor and resistor, is provided to inhibit transmission by attenuation of the signals.

Modifying Manning as proposed by the Examiner, on the other hand, would have changed the principle of operation of Manning, in contravention of M.P.E.P. § 2143.01, since an open circuit in parallel would have no effect, as discussed above, while an open circuit connected in series would not have inhibited the transmission of dialing signals over a telephone link with an a.c. load. Persons of ordinary skill in the art at the time the invention was made who read Manning for all it contains would not have modified Manning as proposed by the Examiner, since the modification would have changed the principle of operation of Manning.

E. Neither Rosen nor Bulfer Make up for the Deficiencies of Manning.

Neither Rosen nor Bulfer teach open-circuiting at all, and thus cannot make up for the deficiencies of Manning.

## **II. Response to Argument**

A. The Examiner asserts at page 11, lines 3-5, that “Manning et al. then, can still be obviously modified to use an open-circuiting method because manning et al. too, requires the prevention of signal transmission.” This is incorrect, as discussed above, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning. The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Manning in view of Rosen, Amadasi, and Bulfer is thus unsupported by the combination of references relied upon and should be withdrawn.

B. The Examiner asserts at page 11, lines 9 and 10, that “sending no signal may possibly have an advantage over sending merely attenuated signals.” This is incorrect, as discussed above, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning. In particular, as discussed above, the DTMF generator of Manning relies on the signal from the central office for its power. Modifying Manning as proposed by the Examiner, on the other hand, would deprive the DTMF generator of its power source. The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Manning in view of Rosen, Amadasi, and Bulfer is thus unsupported by the combination of references relied upon and should be withdrawn.

C. The Examiner asserts at page 11, lines 17-20, that “Because it is a known technique of signal inhibition, one of ordinary skill in the art would have known to employ either open-circuiting (send no signal) or signal attenuation (send attenuated signal).” This is incorrect, as discussed above, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning. In particular, as discussed above, Manning teaches away from open circuiting, saying that it would require a skilled technician to cut the wires and install the switch. The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Manning in view of Rosen, Amadasi, and Bulfer is thus unsupported by the combination of references relied upon and should be withdrawn.

D. The Examiner asserts at page 12, lines 3-7, that “Manning already teaches the selective aspect to inhibiting a signal, Amadasi et al. merely provides another well known technique. Even if Amadasi et al. were the primary reference, the combination could still be effected because signal inhibition is the purpose and teaching of both Manning et al. and

Amadasi et al.” This is incorrect, as discussed above, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning. The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Manning in view of Rosen, Amadasi, and Bulfer is thus unsupported by the combination of references relied upon and should be withdrawn.

E. The Examiner asserts at page 12, lines 15-17, that “the end result of signal inhibition is of import, not whether that technique of signal inhibition is through attenuation or through or through open-circuiting.” This is incorrect, as discussed above, because modifying Manning as proposed by the Examiner would 1.) render Manning inoperable, 2) render Manning unsuitable for its intended purpose, and 3.) change the principle of operation of Manning. The rejection of claims 1-6, 8-13, and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Manning in view of Rosen, Amadasi, and Bulfer is thus unsupported by the combination of references relied upon and should be withdrawn.

### III. Conclusion

In summary, Applicants submit that claims 1-6, 8-13 and 15-20 patentably distinguish over the prior art. Accordingly, Applicants respectfully request reversal of the Examiner's rejections.

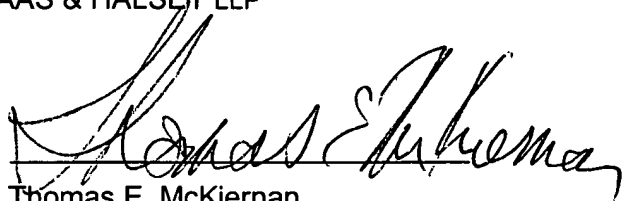
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Respectfully submitted,

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